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TM 200

Tactical Information Management System

TECHNICAL
MEMORANDUM

(TM Series)

Applied Information Management System User's Manual

by

Elmer W. Heller
Engineering Department

23 April 1963

SYSTEM

DEVELOPMENT

CORPORATION

2500 COLORADO AVE.

SANTA MONICA

CALIFORNIA

SDC

A-1159 REV 7/61

APPLIED INFORMATION MANAGEMENT SYSTEM USER'S MANUAL

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I. INTRODUCTION

What is AIMS?

AIMS is offered as your information storage and retrieval system. The acronym
AIMS stands for Applied Information Management System, a more accurate name
than information retrieval because it emphasizes application and the broader
approach of information management. You now have new routes of access and
visibility into your personal store of information. Your most important
working tools need no longer be buried, forgotten or lost in your files and
you can vastly simplify your filing.

You need no special background to use AIMS. You do not require technical or
professional knowledge of the information you are managing. Administrators
and technologists take advantage of this to delegate even the modest tasks of
indexing and to exercise checking only through actual retrieval use.

AIMS provides you with special indexes to locate the information you use or
store. The most important is the Permuted Descriptor Index, or Descriptor
Index. The Name Index ranks second. These two are called Standard Indexes
and you get them periodically. There are others called Requested Indexes.
All are generated for you on the IBM 1401 computer. As later phases of AIMS
become operational, additional stores of information from other groups,
activities and departments may be made available to you.

The most common information handled by AIMS consists of SDC documents, tech-
nical articles, manuals and catalogs, correspondence, and the standard office
files. Uses for AIMS are limited only by your ingenuity. A few unusual
applications now in process are: a directory of transistor characteristics,
and Engineering Department directory of manpower skills and experience, and a
PPG index in depth.

The Engineering Department operates AIMS primarily for its own use, but extends
this service to a limited number of interested people to insure that AIMS will
neither develop too narrowly nor overlook some hidden capability. You become
a user when assigned an originator's code.

Just Know This and Start

Pick four words (or less, but for more see "How Many Descriptors to Use,"
Section III) that describe a document important to you. Write these subject
or key words in this Descriptor Fields of the Log Sheet. A sample Log Sheet,
Figure 1, illustrates the most commonly encountered situations. In the Name
Field write the author's name or company name and then file the document under
that name. Complete the rest of the Log Sheet and mail it to AIMS, Room 29022.
You will receive a Verification Listing about two days later. Complete,
updated indexes will be sent to you every two weeks on the Monday before pay-
day. There will be no need to retain any old indexes.

Questions demonstrating document retrieval might be: Who makes <u>stepper motors</u>?
or, what's in ...e file on <u>Optical Character Readers</u>? Look up any of the
underlined words in the Sample Descriptor Index, Figure 2. (The second one is
tricky but very useful. See the first two entries on the Sample Log Sheet, or
Defined Abbreviations, under "Fine Points," Section III.) It doesn't matter
which words you look up or in what order you search, you get the same infor-
mation, all of it.

Now, to retrieve information, let us use the detailed Descriptor Index to
this document (Section VIII). We will ask a question about using AIMS: Why
do we put a green check mark on a document? Look up "green" or "check" in the
Index Field of Descriptor Index.

The rest of this manual only amplifies and explains these basic ideas. The
manual's arrangement first gives you the most frequently used tools and then
works toward the fine points which will make more sense as you gain experience.

What Are Descriptors?

Descriptors are words you use to find the documents you need. They are tools
for searching. The group of descriptors belonging to one document summarizes
and forms an abstract of that document's content.

When you need information, think of the words that describe it and look them
up in the Descriptor Index. When you find an entry or line of descriptors
that satifies your requirements, the NAME will give you the location of the
physical document in your file.

| NAME ELMER W. HELLER | | | ROOM 29022 |

CLASSIFIER	DESCRIPTOR	DESCRIPTOR	DESCRIPTOR	DESCR
1 8	9 20	21 32	33 44	45
	DEFINED ABBREVIATION SYMBOL		DEFINING TERMS	
	DEFINED ABBREVIATION			
AHA	A ØCR	ØPTICAL	CHARACTER	READER
	CORRESPONDENCE CODE (E,F,G,H) CAUSES REPEAT OF THIS LINE			
	IN NAME INDEX WITH "RABINOW ENGR" AND "HARDY" SWITCHED			
AHAE	ØCR	MULTI FØNT +	PAGE READING	RABINØ
		CONTINUATION SYMBOLS		
		FACILITATING LOOK UP		
AHAE	MULTI FØNT +	RESISTØR	MASK	
AHA	A IR	INFØRMATIØN	RETRIEVAL	
	OUTGOING MEMO CODE	TRADE NAME		
AHAH	IR	VERAC	IMAGE MEMRY	AVCØ
			SPACE CAUSES COMMENT	
	SIGNIFIES CATALOG OR CORPORATE NAME		NOT TO BE PERMUTED	
AHAC	MØTØRØID	STEPPER	MTR FHP	PERMN
	MULTIPLE NAME CODE	CAUSES REPEAT OF THIS LINE		
	IN NAME INDEX WITH "ALLEN" AND "BARRAR" SWITCHED			
AHAI	ASTRØNØMY	PERTURBATIØN	THEØRY	ALLEN

LEAVE
FOR U
COMM

Figure 1. Manuscript Log Sheet

ROOM 29022	PHONE 7914	PAGE 1 OF 1

DESCRIPTOR	DESCRIPTOR	NAME	NUMERICAL
33 44	45 56	57 68	69 75 80

DEFINING TERMS

CHARACTER   READER

OF THIS LINE
DY' SWITCHED   CENTRAL FILES LETTER NUMBER   DATE DAY MONTH YEAR

PAGE READING RABINØW ENGR HARDY   N   +14497 21217

CONTINUATION SYMBOLS
FOR UNIQUE TIE UP

MASK   RABINØW ENGR +14497

RETRIEVAL

MEMO NUMBER

IMAGE MEMRY AVCØ   WALLACE   EM   M22355 20928

SPACE CAUSES COMMENT
NOT TO BE PERMUTED   TELEPHONE NUMBER

MTR FHP   PERMNNT MAG LEETRØNICS   WE 82541

HIS LINE
SWITCHED   SPACES LEFT FOR VOLUME NUMBER

THEØRY   ALLEN   BARRAR   RB   FN 3655

LEAVE BLANK
FOR UNPERMUTED
COMMENT

ONLY NUMBERS
PERMITTED,
NO LETTERS

SDC

Figure 1. Manuscript Log Sheet

```
                    AIMS NAME INDEX      DATE 30416

     CLAS DESCRIPTORI  DESCRIPTOR2   DESCRIPTOR3   DESCRIPTOR4   NAME            NUMERICAL

     HA   A FHP        FRACTIONAL    HORSE         POWER
     HA   A IR         INFORMATION   RETRIEVAL
     HA   A MTR        MOTOR
     HA   A OCR        OPTICAL       CHARACTER     READER
     HAI  ASTRONOMY    PERTURBATION  THEORY        BARRAR        ALLEN           FN  3655
     HAH  IR           VERAC         IMAGE MEMRY   WALLACE EM    AVCO          M22355 20928
     HAI  ASTRONOMY    PERTURBATION  THEORY        ALLEN         BARRAR          FN  3655
     HA   MTR FHP      SERVO                                     BECKMAN            WE 71771
     HA   MTR FHP      GEARED        TORQUE                      BODINE             EA 43161
     HA   SERVO        STEPPER       MTR                         GIANNINI        CH 55701
     HA   TOPOLOGY OF  SYSTEMS AND   ORGANIZTNS                  GORDON    CK    N  17429
     HAE  OCR          MULTI FONT +  PAGE READING  RABINOW ENGR  HARDY     N    +14497 21217
     HAG  OCR VS       FLEXOWRITER   COST          PITTSBURG U   HORTY    JF$  L19642 21023
     HA   MTR FHP      TORQUE AND    DC LARGE                    INLAND MOTOR
     HAC  MOTOROID     STEPPER       PERM MAG      MTR FHP       LEETRONICS         WE 82541
     HA   WEAPON TO    TARGET        ALLOCATION    MINIMIZATION  LUSTER    PK    NLO 2081
     HAG  OCR VS       FLEXOWRITER   COST          HORTY    JF$  PITTSBURG U   L19642 21023
     HAE  MULTI FONT + RESISTOR      MASK                        RABINOW ENGR  +14497 21217
     HAE  OCR          MULTI FONT +  PAGE READING  HARDY    N    RABINOW ENGR  +14497 21217
     HAH  IR           VERAC         IMAGE MEMRY   AVCO          WALLACE   EM  M22355 20928
```

Figure 2. Sample Name Index

AIMS DESCRIPTOR INDEX   DATE 30416

CLAS	INDEX FIELD	DESCRIPTOR	DESCRIPTOR	DESCRIPTOR	NAME		NUMERICAL
HA	A FHP	FRACTIONAL	HORSE	POWER			
HA	A IR	INFORMATION	RETRIEVAL				
HA	A MTR	MOTOR					
HA	A OCR	OPTICAL	CHARACTER	READER			
HA	ALLOCATION	MINIMIZATION	WEAPON TO	TARGET	LUSTER	PK	NLO 2081
HAI	ASTRONOMY	PERTURBATION	THEORY	BARRAR	ALLEN		FN 3655
HA	CHARACTER	READER	A OCR	OPTICAL			
HA	DC LARGE	MTR FHP	TORQUE AND		INLAND MOTOR		
HAG	FLEXOWRITER	OCR VS	COST	HORTY JFS	PITTSBURG U		L19642 21023
HA	FRACTIONAL	HORSE	POWER	A FHP			
HA	GEARED	TORQUE	MTR FHP		BODINE		EA 43161
HA	HORSE	POWER	A FHP	FRACTIONAL			
HA	INFORMATION	RETRIEVAL	A IR				
HAH	IR	VERAC	IMAGE MEMRY AVCO		WALLACE	EM	M22344 20928
HAE	MASK	MULTI FONT +	RESISTOR		RABINOW ENGR		L14497 21217
HA	MINIMIZATION	WEAPON TO	TARGET	ALLOCATION	LUSTER	PK	NLO 2081
HA	MOTOR	A MTR					
HAC	MOTOROID	STEPPER	PERM MAG	MTR FHP	LEETRONICS		WE 82541
HA	MTR	SERVO	STEPPER		GIANNINI		CH 55701
HA	MTR FHP	GEARED	TORQUE		BODINE		EA 43161
HAC	MTR FHP	MOTOROID	STEPPER	PERM MAG	LEETRONICS		WE 82541
HA	MTR FHP	SERVO			BECKMAN		WE 71771
HA	MTR FHP	TORQUE AND	DC LARGE		INLAND MOTOR		
HAE	MULTI FONT +	PAGE READING	OCR	HARDY N	RABINOW ENGR		L14497 21217
HAE	MULTI FONT +	RESISTOR	MASK		RABINOW ENGR		L14497 21217
HAG	OCR VS	FLEXOWRITER	COST	PITTSBURG U	HORTY	JFS	L19642 21023
HAE	OCR	MULTI FONT +	PAGE READING RABINOW ENGR	HARDY N			L14497 21217
HA	OPTICAL	CHARACTER	READER	A OCR			
HA	ORGANIZATNS	TOPOLOGY OF	SYSTEMS AND		GORDON	CK	N 17429
HAE	PAGE READING	OCR	MULTI FONT +	RABINOW ENGR	HARDY N		L14497 21217
HAC	PERM MAG	MTR FHP	MOTOROID	STEPPER	LEETRONICS		WE 82541
HAI	PERTURBATION	ASTRONOMY	THEORY	ALLEN	BARRAR		FN 3655
HA	POWER	A FHP	FRACTIONAL	HORSE			
HA	READER	A OCR	OPTICAL	CHARACTER			
HAE	RESISTOR	MASK	MULTI FONT +		RABINOW ENGR		L14497 21217
HA	RETRIEVAL	A IR	INFORMATION				
HA	SERVO	MTR FHP			BECKMAN		WE 71771
HA	SERVO	STEPPER	MTR		GIANNINI		CH 55701
HA	STEPPER	MTR	SERVO		GIANNINI		CH 55701
HAC	STEPPER	PERM MAG	MTR FHP	MOTOROID	LEETRONICS		WE 82541
HA	SYSTEMS AND	ORGANIZATNS	TOPOLOGY OF		GORDON	CK	N 17429
HA	TARGET	ALLOCATION	MINIMIZATION WEAPON TO		LUSTER	PK	NLO 2081
HA	TOPOLOGY OF	SYSTEMS AND	ORGANIZATNS		GORDON	CI	N 17429
HA	TORQUE	MTR FHP	GEARED		BODINE		EA 43161
HA	TORQUE AND	DC LARGE	MTR FHP		INLAND MOTOR		
HAH	VERAC	IR	IMAGE MEMRY WALLACE EM	AVCO			M22355 20928
HA	WEAPON TO	TARGET	ALLOCATION	MINIMIZATION	LUSTER	PK	NLO 2081

Figure 3. Sample Descriptor Index

II.   YOUR PART IN AIMS

You usually have two roles, both builder and user.

Using AIMS

Using AIMS to find documents is almost intuitively obvious. The
Descriptor Index is searched when you don't know the author. Look in
the Index Field where all descriptors appear in alphabetical order re-
gardless of how they were written originally. If you can't find a useful
document under the first word that occurs to you, try: 1) synonyms,
2) specific words, 3) more general words or, 4) an associated subject.
Read the descriptors in the neighborhood of a look-up hints concerning
where to look next. Hints come from the subjects, special terms, and
types of documents indexed. If you know the author, go directly to the
files because you file the documents by author. You still might look
first at the Name Index to check if you have the document at all, or if
it is kept in an unusual place. Often there is enough information in
the Name Index to spare you retrieving the original. One of the most
interesting features of the AIMS indexes are the natural groupings that
form as your information base grows. Be alert to use them as search
tools and expand them as classifying lists with future entries.

Building AIMS

As a builder of AIMS, you put information into the system by indexing
documents. This process consists of writing descriptors, identifiers,
and control information on the Log Sheet. Descriptors tell the subject
or document content. Your selection of descriptors automatically builds
the main information structure for you, but, as your information base
grows, you may want to put the system's powerful list forming and
classifying capabilities to work.

Identifiers such as author's name, document number, and date specify
and locate the document and are entered in the Name and Numerical fields.
Control information consists of your Originator's Code and Requested
Index Codes written in the Classifier Field. You may request Restricted
Originator's Codes from the AIMS office for classified and sensitive
indexes.

After indexing, file the original document according to the Name entry
as standard procedure. Sometimes you may prefer filing by a descriptor
that you designate with the Special Symbol "$." The original should be
marked with a green[1] check to show that it has been entered. Send each

---

[1] Green is used simply because it is less common than red or blue and so
distinguishes an AIMS document better.

completed Log Sheet to the AIMS office as soon as completed. Each line of
your Log Sheet is punched on an IBM card. To avoid misunderstanding, you must
adhere to the SDC lettering standards as shown in Figure 4 and in PPG 4732/403.
If you prefer typing over hand leterring, you may use the Log Sheet shown in
Figure 5. Line up the Log Sheet carefully and double check the exact location
of characters so the keypuncher will see clearly in what column each character
is to be punched.

Your Log Sheet with a Verification Listing is returned to you for final check,
but the cards themselves are retained in the AIMS office. The Verification
Listing will not have spaces between the fields as will the indexes.

III.   THE DESCRIPTOR INDEX

The Descriptor Index is the heart of AIMS. Descriptors are powerful infor-
mation retrieval tools and these descriptors are permuted. The computer
performs the permutation for you. It plays a sort of musical chairs, re-
arranging every descriptor written on one line. Each descriptor has a turn
to be first and all are retained:

Index Field (Always use this field for look up)	Descriptor 2	Descriptor 3	Descriptor 4
Weapon to	Target	Allocation	Minimization (Your original version)
Target	Allocation	Minimization	Weapon to (First permutation)
Allocation	Minimization	Weapon to	Target (Second permutation)
Minimization	Weapon to	Target	Allocation (Third permutation)

Each of the above lines is then merged with all your other lines and the
Index Field is printed in alphabetical order.

What the Descriptor Index Does for You

1. Enables you to search effectively, simply and quickly by using concepts
   and words natural to you.

2. Brings together, associates and suggests ideas that may not have occurred to you.

3. Facilitates browsing or refining your search objectives and methods as you go along.

4. Automatically provides cross references.

5. Classifies and forms useful groups and lists.

6. Gives you visibility into your store of information from many angles.

How to Choose Descriptors

A. Descriptors should be words selected from the document that answer these questions:

    1. What are all the words I would use to look up this document?

    2. What is this document about?

    3. What are the subjects of this document?

    4. What are all the important concepts mentioned or referred to here?

B. Since descriptors are search tools, use only the best. Some descriptor choices may be eliminated by testing them with these questions:

    1. Would I normally use this word in asking for this document? Eliminate if "no."

    2. Does the word apply only to this document and a few closely related ones? Eliminate if "no."

    3. Could this word call for many irrelevant papers as well as the fewest I intend? Eliminate if "yes."

C. Good descriptors are one of these:

    1. Name (not personal or company)

    2. Idea, concept, subject

    3. Material, equipment, device

    4. Property, characteristic

   5. Process, action, operation

   6. Relation, result, cause

   7. Location

D. The best places to look for descriptors are:

   1. Title (Be very selective. Not all title words are good descriptors.)

   2. Abstract

   3. Summary

   4. Introduction

   5. Recommendations

   6. Conclusions

   7. Headings of articles and paragraphs

   8. Index

   9. Table of contents

E. Use as many descriptors as necessary. Some documents contain only one topic of interest to you and one or two descriptors are adequate. Study the Sample Name Index, Figure 2. Other documents, containing details of great importance to you, require many descriptors, or deep indexing as illustrated by the Descriptor Index to this manual, Section VIII. Use your own good judgment, and if you wish, you may always add to or change the next edition of the indexes. A rough rule of thumb is four descriptors per document. If more than four descriptors are required, continue on the next line of the Log Sheet. Make sure you repeat the identification of the document, usually the Name, or Number, if you have included one. You may also find it helpful to repeat an important descriptor. Use the Special Symbol +, explained in Section VI. Later, when the index is used, the + tells you that there are other entries concerning this document.

F. Fine Points

   Descriptors usually are single words, but often one idea may consist of a group of words. Write each key, or content, word as a separate descriptor on the Log Sheet. Very short words (of, for, is, are, and) sometimes fit in the same space with the descriptor, add much meaning,

F. Fine Points (Continued)

and tie the descriptors together. (See example, "State of the Art," below.) This device can also help eliminate confusion and ambiguity. For instance, what does "Cooling Water" mean? Two answers are given below.

Idea	Descriptor 1	Descriptor 2
Atomic Energy	Atomic	Energy
Data Processing	Data	Processing
State of the Art	State of the	Art
Cooling Water	Cooling of	Water
Cooling Water	Water for	Cooling

Words eliminated as inefficient descriptors may still carry much meaning. Write them as Comments by skipping the first space as shown on the Log Sheet. Comments will not appear in the alphabetized column of the Descriptor Index. Remember, however, that you cannot begin a line with a comment nor follow a comment with a descriptor on the same line.

If you must use a multiple word descriptor very often, it might be convenient to use a Defined Abbreviation for it. A Defined Abbreviation is set up by writing in a descriptor field the letter "A" followed by a space (∧) and a three letter abbreviation of the entire term. Then enter each word of the term as a separate descriptor. The purpose of the "A∧" is to make defined abbreviations appear alphabetically at the beginning of the Descriptor Index and to tell you, wherever you see it, that the three letters following it are the Defined Abbreviation. For example:

Descriptor 1	Descriptor 2	Descriptor 3	Descriptor 4
A OCR	Optical	Character	Reader

A list of Defined Abbreviations will always appear at the head of your Descriptor Index, and looking up the descriptor will lead to the abbreviation. Unorthodox and undefined abbreviations will be forgotton in the course of a few months. If your indexing is used by others, they may not understand your personal symbology.

Be Careful of These

1. Spell Correctly. Misspelled words are alphabetized as spelled and will be hard to look up because they appear out of place. Keypunchers copy exactly what they see and cannot tell the difference between mistakes and coding.

2. Use only <u>Defined Abbreviations</u> or this <u>Abbreviation Rule</u>: Drop
    vowels from the end of a word but retain correct spelling of at
    least the first six letters to retain its alphabetical place. If the
    term is still too long to fit the 12 character field, drop consonants
    from the end. For instance:

                    Accelerometer   -   Accelerometr

                    Implementation -   Implementatn

Don't Worry About These

1. No error or mistake is catastrophic. There is no single correct set
    of descriptors. There are many different sets of useful descriptors.
    If it is very difficult to choose between two good descriptors, use
    both.

2. Hindsight is so much better than foresight that we recommend it.
    Select your descriptors with reasonable care but don't spend un-
    warranted time on them. Improvements seen later are so simply and
    quickly made that you get the best mix of quality and economy with
    the trial and error, or iterative, approach.

3. A piece of information does not have the same value or meaning for
    all people. In choosing descriptors, take the point of view of the
    people who possess and use the information: yourself, your super-
    visor, your immediate colleagues. Don't try to anticipate every
    far-fetched question. A few descriptors chosen to represent the
    most frequent need are best.

                    IV.   THE ADDITIONAL INDEXES

What the Name Index Does for You

A. The Name Index will list all entries with the Name Field in alphabetical
    order. An entry is one line on the Log Sheet or one line of an Index.
    Names may be proper, personal, or business names, and in unusual cases
    the name may be a specifying number.

B. The Namde directs you to the physical document which is filed by that
    Name except as explained in the Special Symbol section.

C. The Name Index is used for updating and to indicate corrections and
    deletions. To delete, draw a red line through the entire entry. For

C. (Continued)

minor corrections of a word or two, write the correct information in red
immediately above and cross out the wrong material. For more extensive
corrections, cross out the entry as for a deletion and write the entire
entry anew on the Log Sheet. Send the Log Sheets and only the marked
pages of the Name Index to the AIMS office before the deadline, Wednesday
morning following payday. Use your duplicate Name Index until the
following Monday when you will receive all your new indexes.

D. Names may be associated, or permuted, similarly to descriptors. For
example, suppose you have a document with two co-authors, or a letter from
Mr. N. Hardy of the Rabinow Engineering Company. (See Sample Log Sheet,
Figure 1.) In either case, the pair of names can be written on one line,
and both will appear in the Name Field properly alphabetized. This is
explained under Multiple Name and Correspondence Indexes, Section V.

V. THE REQUESTED INDEXES

Requested Indexes break your store into smaller and more convenient groupings.
There are five types of Requested Indexes: Combined, Numerical, Correspondence,
Multiple Name, and Assignable. To get a particular index, write your requests
on the Index Request Form, Figure 6, and send it to the AIMS office. An
entry will be included in a Requested Index when you write the Index Code
Letter in the Classifier Field as explained below.

A. You may also request a Combined Index including indexes of other
originators, but only when they authorize the AIMS office in writing to
do so.

B. The Numerical Index arranges entries in numerical order. Lists according
to contract, project, and SDC document number are common applications.
Accession number and date are particularly useful for correspondence and
limited-life material that should be purged when too old. If arranging
your documents numerically is not important to you, you may use the
Numerical Field as you please, for your personal coding, comments, or
references. You have two choices in requesting the Numerical Index, the
Standard and the Double Numerical Index. The Standard Numerical Index
considers the whole Numerical field of 12 characters as one number.
Request it by writing A in column 5 of the Classifier Field.

C. The Double Numerical Index gives you two separate and independent indexes
by dividing the Numerical Field in half, with 6 characters in each. You
will notice that a heavy vertical line divides the Numerical Field on the
Log Sheet to make this convenient. By using this index, you can arrange
letters according to both accession number and date. Request it by
writing "B" in column 5 of the Classifier Field.

Keep These in Mind

1. Only numbers (no alphabetical characters) are allowed in the right half, (columns 75-80), of the Numerical Field.

2. Alphabetical characters in the left half of the Numerical Field will be sorted alphabetically and will precede numbers in the same column. You may think of letters as smaller than digits. An example listing numbers from small to large is:

```
        1
    A   1
    B   1
    Z   1
    O   1
        2
       99  A
       99  B
      100
```

3. The AIMS standard way of writing dates puts the last digit of the year first, then the month in two digits, and finally two digits, and finally two digits for the day of the month. For instance, September 12, 1962, is written 20912.

4. SDC document numbers are written without slashes or the revision number. You may omit the issue number if it consists of all zeros, but leave three spaces for it. The sample Log Sheet, Figure 1, shows an example.

D. Very often you will index documents with more than one name as author, or source. For this use, the Correspondence Index and Multiple Name Index are at your disposal. Suppose that Allen and Barrar are co-authors of a document as illustrated on the Sample Log Sheet. Enter either one in the Name Field and the other in the Descriptor 4 Field and enter the letter "I" in column 4 of the Classifier Field. "I" is the Multiple Name Index Code. Both names will appear in proper order in the Name Index with the other name in the forth descriptor column. They will not be permuted into other descriptor columns. When using this trick, you can only use three descriptors on that line.

E. Correspondence is another application requiring access through two names, personal and business. This is shown on the Sample Log Sheet by the letter from Mr. N. Hardy of Rabinow Engineering. Both names are entered with the signal in column 4 causing them to appear in turn on the Name Index. To distinguish correspondence addressed to specific individuals from published documents, write in column 4 the Correspondence Index Code letters:

E. (Continued)

    E for incoming correspondence from external source (outside SDC)

    F for incoming correspondence from internal source (inside SDC)

    G for outgoing correspondence to external addressee

    H for outgoing correspondence to internal addressee

    With two names, how do we know where to file the original? Use these rules:

    1. File under the business name rather than the personal name.

    2. With two personal names, use the first in alphabetical order.

    3. The special symbol "$" is always a friend in need.

F. You may choose to separate your catalogs, (C), from books, (B), and keep documents, (D), in a file drawer separate from administrative files, (A). The <u>Assignable Index Codes</u> A, B, C, D come in handy here. Enter them in Column 4. You are not restricted to the preceding example, but may use these code letters in any manner you please.

VI. SPECIAL SYMBOLS

<u>Special Symbols</u> are for your convenience and help. When they are written in the columns designated on the Log Sheet, they will not affect sorting or order of the indexes.

A. <u>Continuation +</u>

    Use the + sign when a document requires more than a one-line entry. You encounter this situation when you use more than four descriptors, or more than two names. Put the + in the Special Symbol column of the field that is most convenient to look up and in the field that singles out only that document that you intend. To single out your intention may require you to use two or more +'s on a line. Repeat terms marked + on all continued entries.

B. <u>Location $</u>

    The $ sign tells you that the original document is not stored according to standard procedure which is to file by name or item appearing in the Name Field. The item marked with $ gives the location. For instance,

B. (Continued)

   Bookshelf 2 $ tells you that the document is not in the file cabinet, but
   on bookshelf number 2.

C. Principal Descriptor *

   The * makes your intention clear and eliminates uncertainties due to
   synonyms. First write your preferred terms concluding them with *
   followed by the equivalents illustrated below. Defined Abbreviations are
   always considered principal descriptors.

Descriptor 1	Descriptor 2	Descriptor 3
Document * (principal descriptor)	Paper (equivalent)	Report (equivalent)

VII. AUTOMATIC CLASSIFICATION, LISTS, AND CROSS REFERENCES

Classifications, Lists and Cross References form automatically in the
Descriptor Index. This takes place whenever you write a descriptor more than
once because all entries and occurrences of this descriptor appear together,
forming a list of identical descriptors. As important as this is, this
Descriptor Index does another clever trick. When there is a list of identical
descriptors in the first field, the second Descriptor Field is arranged
alphabetically. You can exploit this by writing a Classifying Descriptor in
every entry that is to form a list. An entry may be part of several lists
simultaneously by using several Classifying Descriptors.

A most convenient form of the Classifying Descriptor is the Defined Abbreviation.
It saves much writing and is easily recognized on look-up. The example below
will show that you need not be terrified by the complicated names. You will
find more illustrations in the Sample Descriptor Index, Figure 3, under the
Defined Abbreviations for MOTOR and OPTICAL CHARACTER READERS.

Descriptor 1	Descriptor 2	Descriptor 3	Name
A MTR (Defined Abbreviation)	Motor (Definition)	---	
MTR (Classifying Descriptor)	Stepper	---	Giannini
MTR FHP	Torque	---	Inland Motor

When lists grow long, it becomes worthwhile to break them up with sub-classifications such as the FHP (fractional horse power) following MTR in the example above.

As a last word, you will learn a great deal by carefully looking over the sample indexes. An Index in depth of this manual forms Section VIII. It is identified by the originator's code, AIM.

DESCRIPTOR INDEX TO THIS MANUAL

PAGE NUMBERS FOLLOW DESCRIPTORS.
NUMBERS IN NAME FIELD INDICATE ARRANGEMENT IN ORDER OF CONCEPTS.

INDEX FIELD	DESCRIPTOR	DESCRIPTOR	DESCRIPTOR	NAME
A + 12,17	CONTINUATION	SPECIAL SYM	SYMBOL 17	27
A $ 9,17	LOCATION	SPECIAL SYM		26
A * 18	PRINCIPLE	DSCR	SPECIAL SYM	28
A AIMS	APPLIED	INFORMATION	MANAGMNT SYS	01
A DF	DEFINITION			30
A DSCR	DESCRIPTOR			02
A IDX	INDEX,ING 9			29
A LIST OF	DEFINED	ABBREVTN 13	ABBREVTN 14	25
A RFO	REFERENCE	ONLY. NOT	KEPT IN FILE	31
A SYM	SYMBOL			32
A SYS	SYSTEM			33
ABBREVIATN	RULE 14			04
ABBREVTN 13	A LIST OF	DEFINED	ABBREVTN 14	25
ADDITION 15	DEADLINE 15	UPDATE 14 +	DELETE 14	11
AIMS	OFFICE 4	RM 29022	BLDG 5 X7914	HELLER EW
ALPHABETICAL	NUMERICAL	ORDER 16		23
APPLIED	INFORMATION	MANAGMNT SYS	A AIMS	01
ASSIGNABL 17	IDX REQST15+	CODE LETTR15	ASSIGNABL15	18
CHECK DOCUMT	GREEN	ENTERED ON	LOG SHEET 9	07
CHOOSING 11	NUMBER OF 12	DSCR	SOURCES 12	03
CLASSIFIED 9	SENSITIVE 9	IDX	CODE FOR +	21
CLASSIFIER	FIELD 9,15	CODE	IDX REQST	15
CLASSIFYNG18	LISTFORMG18	DSCR		19
CODE	IDX REQST	CLASSIFIER	FIELD 9,15	15
CODE FOR +	CLASSIFIED 9	SENSITIVE 9	IDX	21
CODE FOR +	RESTRICTD 9	ORIGINATR 4		20
CODE LETTR15	ASSIGNABL 17	IDX REQST15+	ASSIGNABL15	18
COMMENT 13	UNPERMUTED			09
COMPUTER 3	PROGRAM 4C18	FOR IBM1401		22
CONTINUATION	SPECIAL SYM	SYMBOL 17	A + 12,17	27
CORRECTING14	UPDATE 14 +			12
CORRESPNDC16	MULTIPL NM16	IDX REQST15+	REQUESTED	16
DATE STANDRD	6,16			24

DESCRIPTOR INDEX TO THIS MANUAL (CONTINUED)

PAGE NUMBERS FOLLOW DESCRIPTORS.
NUMBERS IN NAME FIELD INDICATE ARRANGEMENT IN ORDER OF CONCEPTS.

DESCRIPTOR INDEX TO THIS MANUAL (CONTINUED)

PAGE NUMBERS FOLLOW DESCRIPTORS.
NUMBERS IN NAME FIELD INDICATE ARRANGEMENT IN ORDER OF CONCEPTS.

DESCRIPTOR INDEX TO THIS MANUAL (CONTINUED)

DESCRIPTORS IN ORIGINAL WORD ORDER WITH LINES IN ORDER OF CONCEPTS.

DESCRIPTOR1	DESCRIPTOR2	DESCRIPTOR3	DESCRIPTOR4	NAME
AIMS	OFFICE 4	RM 29022	BLDG 5 X7914	HELLER EW
RECORD	MANAGMNT AND	FILING	RFO BOOK	ODELL,STRONG
A AIMS	APPLIED	INFORMATION	MANAGMNT SYS	01
A DSCR	DESCRIPTOR			02
SOURCES 12	CHOOSING 11	NUMBER OF 12	DSCR	03
ABBREVIATN	RULE 14			04
ENTRY IS ONE	LINE ON	INDEX OR	LOG SHEET 14	05
LETTERING	STANDRD10,24	PPG4732/403		06
GREEN	CHECK DOCUMT	ENTERED ON	LOG SHEET 9	07
STANDARD	FILING	METHOD 4,9	14,17	08
COMMENT 13	UNPERMUTED			09
VERIFICATION	LISTING 4,10			10
UPDATE 14 +	DELETE 14	ADDITION 15	DEADLINE 15	11
UPDATE 14 +	CORRECTING14			12
DSCR DF 4	PERMUTED 10	DSCR IDX10,8	FUNCTIONS 10	13
IDX DSCR8,10	DSCR	IDX NAME 7	NAME 9,14	14
CLASSIFIER	FIELD 9,15	CODE	IDX REQST	15
IDX REQST15+	REQUESTED	CORRESPNDC16	MULTIPL NM16	16
IDX REQST15+	STANDARD 15	DOUBLE 15	NUMERICAL	17
IDX REQST15+	CODE LETTR15	ASSIGNABL 17	ASSIGNABL15	18
DSCR	CLASSIFYNG18	LISTFORMG18		19
RESTRICTD 9	ORIGINATR 4	CODE FOR +		20
CODE FOR +	CLASSIFIED 9	SENSITIVE 9	IDX	21
COMPUTER 3	PROGRAM 4C18	FOR IBM1401		22
ALPHABETICAL	NUMERICAL	ORDER 16		23
DATE STANDRD	6,16			24
A LIST OF	DEFINED	ABBREVTN 13	ABBREVTN 14	25
A S 9,17	LOCATION	SPECIAL SYM		26
A + 12,17	CONTINUATION	SPECIAL SYM	SYMBOL 17	27
A * 18	PRINCIPLE	DSCR	SPECIAL SYM	28
A IDX	INDEX,ING 9			29
A DF	DEFINITION			30
A RFO	REFERENCE	ONLY. NOT	KEPT IN FILE	31
A SYM	SYMBOL			32
A SYS	SYSTEM			33

LETTERING GUIDE

A	B	C	D	E	F	G	H
I	J	K	L	M	N	Ø	P
Q	R	S	T	U	V	W	X
Y	Z	1	2	3	4	5	6

7	8	9	0	—	+	/	$
				MINUS	PLUS	SLASH	DOLLAR

✳	▽	(	)	.	,	△	=
ASTERISK	PRIME	PARENTHESES		PERIOD	COMMA	CARET	EQUAL

SDC 2504 REV. (5/60)

Figure 4.   Lettering Guide

AIMS PERMUTED DESCRIPTOR LOG SHEET

NAME	ELMER W. HELLER		ROOM 29082	PHONE 7914	PAGE 1 OF 1	
CLASSIFIER	DESCRIPTOR	DESCRIPTOR	DESCRIPTOR	DESCRIPTOR	NAME	NUMERICAL
ABA	A OCR	OPTICAL	CHARACTER	READER		
ABAE	OCR	MULTI FONT	PAGE READING	RABINOW ENGR	HANDY N	14497 21217
ABAE	MULTI FONT	RESISTOR	MASK		RABINOW ENGR	14497
ABA	A IR	INFORMATION	RETRIEVAL			
ABAE	IR	VERAC	IMAGE MEMORY	AVCO	WALLACE EM	22355 20926
ABAC	MOTOROID	STEPPER	MTR ELC FEP	PERMENT MAG	LECTRONICS	WE 82541
ABI	ASTRONOMY	PERTURBATION	THEORY	ALLEN	BARRAR RB	FN 3655
				LEAVE BLANK FOR UNPERMUTED COMMENT		

SPECIAL SYMBOL

ORIGINATOR'S CODE

Figure 5.　Typing Log Sheet

(LAST PAGE)

AIMS INDEX REQUEST

Connect to specify requested indexes —.

Figure 6.   Index Request

DISTRIBUTION LIST:

Name	Room No.	Name	No.
E. Adams	1017A	B. L. Mathers	20154
C. Bare	1021	L. J. Matteson	1376
R. Bare	1815A	D. McDermott	20151
H. Barker	4657	C. W. Missler	1015
R. Barnett	29028	R. Montavon	3515
R. Barrett	Dayton	G. Neil	10087
R. Bartindale	3531	J. Olney	9631
F. L. Behan	4452	R. Osick	29004
H. Berns	24007	K. Overturf	29020
C. Bok	3067	R. Rhine	2362
H. Borko	9431	R. Rodheim	20045
T. Braun	2380A	T. Rowan	2101
V. J. Braun	2338B	W. Rutherford	20023
H. K. Brown	10159	J. C. Rombach	22062
J. M. Brown	1145	G. Sanders	10168
J. Brosal	29925	W. C. Schaefer	Washington
W. I. Butler	1226B	L. Schultz	4747
J. C. Campbell	20016	S. Schwartz	29034
W. J. Condon	12150A	R. Scoffone	20021
C. Cuadra	2050	D. Scott	20034
R. Davison	10176	M. Selman	29012
L. Doyle	9630	R. Shaw	20040
B. Dysart	20036	H. Stark	29034
H. Friedeberg	29030	C. Starkey	3527
V. Galati	20012	S. Stern	29034
W. Gardner	29006	S. Stevenson	29035
R. N. Gifford	4457B	V. J. Storey	12089
W. Gutcheon	29026	J. Symans	20034
L. Guthrie	29025	P. Vlahos	20046
R. W. Harris	3067	N. Vogel	24007
J. Hawkins	29026	R. Watson	20040
E. Heller	29022	B. Wills	20024
E. Herd	20042	R. C. White	4454
M. Hersh	29038	L. Travis	9732
H. Isaacs	1107		
G. Jacobs	2143		
D. H. Kearin	20148		
C. Kellog	9527		
R. Lamoureux	20150		
R. S. Laymon	4564B		
R. G. Leitner	29012		
S. Lessler	20021		
R. Lunney	29031		
D. Manning	20028		
B. L. Mathers	20154		

System Development Corporation,
Santa Monica, California
APPLIED INFORMATION MANAGEMENT
SYSTEM USER'S MANUAL.
Scientific rept., TM-1201/000/00,
by E. W. Heller. 23 April 1963,
26p., 6 figs.

Unclassified report

DESCRIPTORS: Information Retrieval.

Describes AIMS (Applied Information
Management System), an information
storage and retrieval system, used by
the Engineering Department at

System Development Corporation. AIMS
inputs are descriptors manually
selected from the body and title of
documents by a technique not requiring
professional subject matter or
abstracting skill. Outputs are special
computer generated indexes to locate
information stored. The most important
is the Permuted Descriptor Index. States
that the most common information handled
by AIMS consists of SDC documents,
technical articles, manuals and catalogs,
correspondence, and the standard office
files.